

P **Mentha aquatica**

Common Name(s)

Water Mint

How Used

G

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	(+)-ISOMENTHONE	Leaf	1230	3485	-0.08380547905273038	
0	(+)-MENTHOFURAN	Leaf	330	1445	1.4129257812897391	
0	(+)-NEOMENTHOL	Leaf	630	1785	0.4755159366502996	
0	(+)-NEOMENTHYL-ACETATE	Leaf	480	1360		
4	(+)-PULEGONE	Leaf	510	1445	-0.6679831237459577	
0	(-)-LIMONENE	Leaf	210	595	-0.8265112371345806	
2	(-)-MENTHONE	Leaf	510	2805	-0.7890023610971657	
67	1,8-CINEOLE	Shoot --	110	-0.13402087558259082	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation	
67	1,8-CINEOLE	Shoot --	140	-0.13359062486748594	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
67	1,8-CINEOLE	Leaf	300	850	-0.42089267832815774		
67	1,8-CINEOLE	Shoot --	115	-0.13394916713007335	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
67	1,8-CINEOLE	Shoot	110	110	-0.13402087558259082	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
67	1,8-CINEOLE	Shoot --	45	-0.13495308546531803	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	1-OCTEN-3-OL	Shoot --	2	-0.6377271578856241	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	1-OCTEN-3-OL	Shoot	0.1	0.1	-0.646273518203606	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTEN-3-OL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	1-OCTEN-3-OL	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTEN-3-OL	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTYL-3-YL-ACETATE	Shoot	--	2	-0.46090305337856907	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTYL-3-YL-ACETATE	Shoot	3	3	-0.43804835651682184	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTYL-3-YL-ACETATE	Shoot	--	3	-0.43804835651682184	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTYL-3-YL-ACETATE	Shoot	--	3	-0.43804835651682184	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	1-OCTYL-3-YL-ACETATE	Shoot	--	2	-0.46090305337856907	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	2,4-DECADIENAL	Shoot --	2	1.0000000000000002	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	2,4-DECADIENAL	Shoot 0.1	0.1	-1	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	2,4-DECADIENAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	2,4-DECADIENAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	2,4-DECADIENAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	2-N-AMYLFURAN	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	2-N-AMYLFURAN	Shoot 0.1	0.1		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation	
0	2-N-AMYLFURAN	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	2-N-AMYLFURAN	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	2-N-AMYLFURAN	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
16	ACACETIN	Plant	--	--	J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.	
0	ACACETIN-7-RUTINOSIDE	Plant	--	--	J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.	
3	ACETONE	Leaf	--	--	Jim Duke's personal files.		
0	ALLO-AROMADENDRENE	Shoot	--	2	-0.18449899191288488	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALLO-AROMADENDRENE	Shoot	1	1	-0.18581291700394026	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALLO-AROMADENDRENE	Shoot	--	3	-0.18318506682182947	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	ALLO-AROMADENDRENE	Shoot --	16	-0.1661040406381092	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALLO-AROMADENDRENE	Shoot --	1	-0.18581291700394026	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-COPAENE	Shoot 2	2	-0.3247580887205161	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-COPAENE	Shoot --	2	-0.3247580887205161	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-COPAENE	Shoot --	2	-0.3247580887205161	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-COPAENE	Shoot --	2	-0.3247580887205161	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-COPAENE	Shoot --	2	-0.3247580887205161	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	ALPHA-EUDESMOL	Shoot	7	-0.3517412136650936	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	ALPHA-EUDESMOL	Shoot --	22	1.3270236697364897	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	ALPHA-EUDESMOL	Shoot --	24	1.5508589875233674	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	ALPHA-EUDESMOL	Shoot --	11	0.09592942190866195	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	ALPHA-EUDESMOL	Shoot --	7	-0.3517412136650936	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	ALPHA-GURJUNENE	Shoot --	10	-0.8039551133637287	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	ALPHA-GURJUNENE	Shoot --	12	-0.757647298833978	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	ALPHA-GURJUNENE	Shoot --	8	-0.8502629278934796	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-GURJUNENE	Shoot --	4	-0.9428785569529811	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ALPHA-GURJUNENE	Shoot	4	-0.9428785569529811	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
28	ALPHA-PINENE	Shoot --	14	-0.14605225948006592	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
28	ALPHA-PINENE	Shoot --	13	-0.14615199142269486	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
28	ALPHA-PINENE	Shoot --	8	-0.14665065113583953	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
28	ALPHA-PINENE	Leaf	18	68	-0.22012965416485936	
28	ALPHA-PINENE	Shoot	8	-0.14665065113583953	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation	
28	ALPHA-PINENE	Shoot --	9	-0.1465509191932106	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
101	APIGENIN	Plant --	--		J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.	
0	APIGENIN-7-BETA-D-GLUCOPYRANOSIDE	Plant --	--		J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.	
0	APIGENIN-7-RUTINOSIDE	Plant --	--		J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.	
0	BETA-CARYOPHYLLENE	Shoot --	32	-0.34509629975614076	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CARYOPHYLLENE	Leaf	70	850	0.08134626903727397		
0	BETA-CARYOPHYLLENE	Shoot	32	32	-0.34509629975614076	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	BETA-CARYOPHYLLENE	Shoot --	75	-0.25792055501122796	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CARYOPHYLLENE	Shoot --	115	-0.1768268389694486	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CARYOPHYLLENE	Shoot --	75	-0.25792055501122796	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	BETA-CUBEBENE	Shoot --	4	-0.253152042232558	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CUBEBENE	Shoot 4	4	-0.253152042232558	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CUBEBENE	Shoot --	9	-0.2427325475736611	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CUBEBENE	Shoot --	8	-0.2448164465054405	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CUBEBENE	Shoot --	2	-0.2573198400961167	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CYCLOCITRAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-CYCLOCITRAL	Shoot 0.1	0.1	-0.7109289582578825	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	BETA-CYCLOCITRAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	BETA-CYCLOCITRAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	BETA-CYCLOCITRAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	BETA-ELEMENE	Shoot --	65	-0.11953111910292297	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	BETA-ELEMENE	Shoot --	65	-0.11953111910292297	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	BETA-ELEMENE	Shoot --	55	-0.1534515914700857	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	BETA-ELEMENE	Shoot --	29	-0.24164481962470882	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
5	BETA-ELEMENE	Shoot 29	29	-0.24164481962470882	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-EUDESMOL	Shoot --	24	1.3163041116635639	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-EUDESMOL	Shoot --	27	1.6248128878347115	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-EUDESMOL	Shoot --	13	0.18510526570268904	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-EUDESMOL	Shoot --	8	-0.3290760279158904	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-EUDESMOL	Shoot 24	24	1.3163041116635639	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	BETA-FARNESENE	Shoot --	17	-0.365906194788025	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	BETA-FARNESENE	Shoot --	11	-0.3998562540982541	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-FARNESENE	Shoot --	6	-0.4281479701901117	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-FARNESENE	Shoot 6	6	-0.4281479701901117	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BETA-FARNESENE	Shoot --	16	-0.3715645380063965	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	BETA-MYRCENE	Shoot --	37	-0.2850002359707011	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	BETA-MYRCENE	Shoot --	26	-0.3074660526172515	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	BETA-MYRCENE	Shoot --	12	-0.3360589101674067	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
2	BETA-MYRCENE	Shoot 85	85	-0.18696758151302673	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	BETA-MYRCENE	Shoot --	36	-0.2870425829385694	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-PINENE	Shoot --	20	-0.11969942581367655	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-PINENE	Shoot --	27	-0.11920908974169492	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-PINENE	Shoot --	24	-0.11941923377254418	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-PINENE	Shoot --	13	-0.12018976188565819	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
13	BETA-PINENE	Leaf 15	315	0.035492687396899314		
13	BETA-PINENE	Shoot 13	13	-0.12018976188565819	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	BICYCLOGERMACRENE	Shoot --	6	-0.8454527977722681	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BICYCLOGERMACRENE	Shoot --	7	-0.841158979601764	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BICYCLOGERMACRENE	Shoot --	5	-0.8497466159427722	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BICYCLOGERMACRENE	Shoot --	2	-0.8626280704542847	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BICYCLOGERMACRENE	Shoot 2	2	-0.8626280704542847	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BOURBONENE	Shoot --	3	-1.1137070295367113	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BOURBONENE	Shoot --	5	-0.3275608910402094	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	BOURBONENE	Shoot --	6	0.0655121782080416	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BOURBONENE	Shoot 6	6	0.0655121782080416	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	BOURBONENE	Shoot --	4	-0.7206339602884604	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
9	CAMPHENE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
9	CAMPHENE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
9	CAMPHENE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
9	CAMPHENE	Shoot 0.1	0.1	-0.1342670938252942	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
9	CAMPHENENE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
19	CARVONE	Leaf	510	1785	0.08317670792891492	Jim Duke's personal files.
31	CARYOPHYLLENE	Leaf	--	--		Jim Duke's personal files.
8	CARYOPHYLLENE-OXIDE	Shoot	--	3	-0.3926872831083181	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
8	CARYOPHYLLENE-OXIDE	Shoot	--	3	-0.3926872831083181	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
8	CARYOPHYLLENE-OXIDE	Shoot	--	1	-0.3970730841170472	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
8	CARYOPHYLLENE-OXIDE	Shoot	1	1	-0.3970730841170472	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
8	CARYOPHYLLENE-OXIDE	Shoot	--	6	-0.3861085815952244	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	CINEOLE	Leaf	63	1904	-0.5927137247457667	

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	CIS-BETA-OCIMENE	Shoot --	8	-0.5039521391496569	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-BETA-OCIMENE	Shoot --	5	-0.5234943490109244	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-BETA-OCIMENE	Shoot --	2	-0.5430365588721919	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-BETA-OCIMENE	Shoot 5	5	-0.5234943490109244	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-BETA-OCIMENE	Shoot --	8	-0.5039521391496569	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-JASMONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-JASMONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low	High	StdDev	Reference	Citation	
		PPM	PPM				
0	CIS-JASMONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.		
0	CIS-JASMONE	Shoot	0.1	0.1	-1.4988327508640107	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	CIS-JASMONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.		
2	ELEMOL	Shoot	70	70	-0.6732642434273933	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	ELEMOL	Shoot	--	220	0.8989667349967224	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	ELEMOL	Shoot	--	275	1.4754514270855648	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	ELEMOL	Shoot	--	170	0.374889742188684	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	

Chemical Plant Part		Low	High	StdDev	Reference	Citation	
		PPM	PPM				
2	ELEMOL	Shoot --	70	-0.6732642434273933	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
2	ELEMOL	Leaf	660	1870	1.3469294965542162		
0	EO	Shoot --	1500	-0.8141965329475307	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	EO	Shoot --	1700	-0.7956845977843217	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	EO	Shoot --	1600	-0.8049405653659262	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	EO	Shoot --	1100	-0.8512204032739488	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	EO	Leaf	3000	8500	-0.26696073465631487	List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	EO	Shoot	1100	1100	-0.8512204032739488	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ERIODICTYOL-7-BETA-D-GLUCOPYRANOSIDE	Plant	--	--	J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	ERIODICTYOL-7-RUTINOSIDE	Plant	--	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite.	1991.
13	FORMIC-ACID	Leaf	--	--	Jim Duke's personal files.	
6	FURFURAL	Leaf	--	--	Jim Duke's personal files.	
0	GAMMA-MUUROLENE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	GAMMA-MUUROLENE	Shoot	--	1	-0.3724734981350398	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	GAMMA-MUUROLENE	Shoot	1	1	-0.3724734981350398	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	GAMMA-MUUROLENE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
0	GAMMA-MUUROLENE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
11	GAMMA-TERPINENE	Shoot	--	5	-0.39087991166838365	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
11	GAMMA-TERPINENE	Shoot --	2	-0.3929527157162362	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
11	GAMMA-TERPINENE	Shoot 2	2	-0.3929527157162362	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
11	GAMMA-TERPINENE	Shoot --	8	-0.3888071076205311	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
11	GAMMA-TERPINENE	Shoot --	5	-0.39087991166838365	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	GERMACRENE-D	Shoot --	130	-0.2976107775525158	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	GERMACRENE-D	Leaf	70	595	-0.04345648866625705	
2	GERMACRENE-D	Shoot --	80	-0.3256419647815558	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	GERMACRENE-D	Shoot --	25	-0.35647627073349986	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
2	GERMACRENE-D	Shoot 25	25	-0.35647627073349986	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	GERMACRENE-D	Shoot --	115	-0.3060201337212278	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
8	HESPERETIN	Plant --	--		J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.
0	HESPERETIN-7-BETA-D-GLUCOPYRANOSIDE	Plant --	--		J.S. Glasby Dict.Pls	Containing 2ndary Metabolite. 1991.
0	ISOAMYL-ISOVALERATE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ISOAMYL-ISOVALERATE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ISOAMYL-ISOVALERATE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	ISOAMYL-ISOVALERATE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	ISOAMYL-ISOVALERATE	Shoot 0.1	0.1	-0.4765294039940469	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
3	ISOMENTHONE	Shoot 0.1	0.1	-0.5336018108879219	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
3	ISOMENTHONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
3	ISOMENTHONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
3	ISOMENTHONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
3	ISOMENTHONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
3	ISOMENTHONE	Leaf 30	170	-0.62376353248996		
60	LIMONENE	Shoot --	60	-0.29789596175373306	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
60	LIMONENE	Leaf	114	714	0.303344274117639	
60	LIMONENE	Shoot	60	60	-0.29789596175373306	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
60	LIMONENE	Shoot	--	21	-0.31774887535221497	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
60	LIMONENE	Shoot	--	60	-0.29789596175373306	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
60	LIMONENE	Shoot	--	75	-0.290260225754317	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	LINALOL	Leaf	1080	3060	1.3698944061795897	
53	LINALOOL	Leaf	1080	3060	1.471569724590626	List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	LINALYL-ACETATE	Leaf	--	--		List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	LUTEOLIN-7-BETA-D-GLUCOPYRANOSIDE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	LUTEOLIN-7-RUTINOSIDE	Plant	--	--		J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	MEHTOFURAN	Shoot 85	85		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	MELISSIC-ACID	Leaf --	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
5	MENTHOFURAN	Leaf 30	7582			
5	MENTHOFURAN	Shoot 42	42	-0.4370793494538463	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	MENTHOFURAN	Shoot --	180	-0.4096750104149409	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	MENTHOFURAN	Shoot --	395	-0.3669798445209941	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
5	MENTHOFURAN	Shoot --	500	-0.34612871699139214	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
63	MENTHOL	Shoot --	1	-0.6444587500209842	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
63	MENTHOL	Leaf 3570	3570	-0.19360438419646248		

Chemical Plant Part		Low	High	StdDev	Reference	Citation	
		PPM	PPM				
63	MENTHOL	Shoot 1	1	-0.6444587500209842	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
63	MENTHOL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
63	MENTHOL	Shoot --	3	-0.6414348966484517	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
63	MENTHOL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
30	MENTHONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
30	MENTHONE	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
30	MENTHONE	Leaf	23	212	-0.613866095511492		
30	MENTHONE	Shoot	0.1	0.1	-0.8214418565250121	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
30	MENTHONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
30	MENTHONE	Shoot	--	2	-0.8211188672141561	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	MENTHYL-ACETATE	Shoot	6	6	-0.49157346467694896	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	MENTHYL-ACETATE	Shoot	--	2	-0.6750942248230098	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	MENTHYL-ACETATE	Shoot	--	2	-0.6750942248230098	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	MENTHYL-ACETATE	Shoot	--	6	-0.49157346467694896	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	MENTHYL-ACETATE	Leaf	1900	1900	-1	
1	MENTHYL-VALERATE	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
3	METHYL-ACETATE	Shoot 16	16	1	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
22	MYRCENE	Leaf --	--		Jim Duke's personal files.	
0	MYRTENYL-METHYL-ETHER	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	MYRTENYL-METHYL-ETHER	Shoot 0.1	0.1	-1.0097721130343957	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	MYRTENYL-METHYL-ETHER	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	MYRTENYL-METHYL-ETHER	Shoot --	2	-0.9901799045609176	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	MYRTENYL-METHYL-ETHER	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	N-HEXANAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	N-HEXANAL	Shoot	0.1	0.1	-1	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	N-HEXANAL	Shoot	--	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	N-HEXANAL	Shoot	--	2	1.0000000000000002	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	N-HEXANAL	Shoot	--	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	NEOMENTHOL	Leaf	--	--		Jim Duke's personal files.
11	NEROLIDOL	Shoot	--	3	-0.40119990016633905	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
11	NEROLIDOL	Shoot	--	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
11	NEROLIDOL	Shoot	0.1	0.1	-0.4100135839778336	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
11	NEROLIDOL	Shoot --	4	-0.3981606988520306	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
11	NEROLIDOL	Shoot --	2	-0.40423910148064757	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	NONANOIC-ACID	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	NONANOIC-ACID	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	NONANOIC-ACID	Shoot 0.1	0.1	-0.6146598831763856	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	NONANOIC-ACID	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
2	NONANOIC-ACID	Shoot --	2	-0.4758133309661321	Umemoto, K., Arai, T., Nii, H. and Furukawa, K.	1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	OCTAN-3-OL	Leaf	3	162	-0.4159560336666566	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	OCTAN-3-OL-ACETATE	Leaf	--	--		Jim Duke's personal files.
16	P-CYMENE	Shoot	--	2	-0.4998171975740504	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
16	P-CYMENE	Shoot	--	2	-0.4998171975740504	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
16	P-CYMENE	Shoot	--	1	-0.500609925430423	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
16	P-CYMENE	Shoot	1	1	-0.500609925430423	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
16	P-CYMENE	Shoot	--	2	-0.4998171975740504	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	P-CYMOL	Leaf	6	51	-0.5242397055421542	
3	PIPERITENONE	Leaf	--	--		Jim Duke's personal files.
7	PIPERITONE	Leaf	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	PIPERITONE-OXIDE	Leaf	--	--		Jim Duke's personal files.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation	
28	PULEGONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
28	PULEGONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
28	PULEGONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
28	PULEGONE	Leaf	54	153	-0.6636583918928131		
28	PULEGONE	Shoot	0.1	0.1	-0.2690227918468267	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
28	PULEGONE	Shoot	--	--	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
57	ROSMARINIC-ACID	Plant	27000	27000	-0.08324448923511193	Fitoterapia No.62:	166.
5	SABINENE	Shoot	--	35	-0.25865584465310376	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation	
		PPM	PPM				
5	SABINENE	Shoot --	7	-0.2884688205415059	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.		
5	SABINENE	Shoot	35	35	-0.25865584465310376	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
5	SABINENE	Shoot --	10	-0.2852745731248914	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.		
5	SABINENE	Shoot --	15	-0.2799508274305339	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.		
35	TANNIN	Leaf	74000	74000	-0.44596183266254885	List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
0	TERPINENE	Leaf	--	--		List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
9	TERPINOLENE	Shoot --	2	-0.7480787235698596	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.		

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
9	TERPINOLENE	Shoot --	2	-0.7480787235698596	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
9	TERPINOLENE	Shoot --	1	-0.7769620719702403	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
9	TERPINOLENE	Shoot 1	1	-0.7769620719702403	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
9	TERPINOLENE	Shoot --	2	-0.7480787235698596	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	TRANS-2-HEPTANAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	TRANS-2-HEPTANAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	TRANS-2-HEPTANAL	Shoot --	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	TRANS-2-HEPTANAL	Shoot	0.1	0.1		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	TRANS-2-HEPTANAL	Shoot	--	--		Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	VERBENYL-ACETATE	Shoot	--	2	-0.8164965809277258	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	VERBENYL-ACETATE	Shoot	--	3	1.2247448713915892	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	VERBENYL-ACETATE	Shoot	3	3	1.2247448713915892	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	VERBENYL-ACETATE	Shoot	--	2	-0.8164965809277258	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
0	VERBENYL-ACETATE	Shoot	--	2	-0.8164965809277258	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.

Chemical Plant Part		Low	High	StdDev	Reference	Citation	
		PPM	PPM				
1	VIRIDIFLOROL	Shoot --	195	1.938075365139788	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
1	VIRIDIFLOROL	Shoot --	140	1.109355092388081	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
1	VIRIDIFLOROL	Shoot --	50	-0.24673262666016743	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	
1	VIRIDIFLOROL	Leaf	36	102	4.397695972931276		
1	VIRIDIFLOROL	Shoot	140	140	1.109355092388081	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.
1	VIRIDIFLOROL	Shoot --	135	1.0340168857742895	Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993.	A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.	